



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
087734.970	02/05/97	WHITEHOUSE	840.043.002

MORRIS E COHEN  
LEVISOHN LERNER BERGER & LANGSAM  
757 THIRD AVENUE  
NEW YORK NY 10017

MM21/0807

EXAMINER  
ANDERSON, B

ART UNIT  
2878

PAPER NUMBER  
9

DATE MAILED: 08/07/98

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**08/794,970**

Applicant(s)  
**WHITEHOUSE ET. AL.**

Examiner  
**BRUCE ANDERSON**

Group Art Unit  
**2878**



☒ Responsive to communication(s) filed on Jul 13, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire THREE month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claims

☒ Claim(s) 164-259 (RENUMBERED CLAIMS 2-98) is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 164-259 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2878

## DETAILED ACTION

### *Claim Rejections - 35 U.S.C. § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 164-259 are rejected under 35 U.S.C. 103(a) as being unpatentable over Douglas (736)/(278) in view of Chowdhury (320), Aberth (669, and Guilhaus (107).

Douglas (736) discloses the well known combination of an ion source (electrospray), a multipole ion guide 32 (col.2, line 60), multiple vacuum stages, and a quadrupole mass spectrometer/detector. Note gas may be admitted into the first vacuum stage 30, via gas means 42 (collisional focusing, col.6, last paragraph or col.13, second paragraph).

Art Unit: 2878

Douglas (278) discloses a similar combination with nebulizing ion source, a multipole ion guide 44, a means 70 which acts as a time delay means (col.6, lines 34-37), and a quadrupole/detector means. Note the guide (44) may act as a first mass spectrometer or prefilter to the second mass analyzer (col.1, lines 55-60). Note collisional dissociation may occur in the multipole guide 44 (col.10, lines 15-20).

When analyzing ions from an electrospray it is not unusual to interchange quadrupole mass spectrometers with time of flight spectrometers, as seen in the secondary reference to Chowdhury (col.3, lines 16-20). Furthermore, it is not unusual to have a tandem mass spectrometer arrangement to have different combinations of the first and second mass analyzer, i.e. quadrupole mass and a TOF mass (see claims 9-10 of Aberth). Thus, it is obvious to one of ordinary skill in the art that one may have a quadrupole (multipole) ion guide in between the ion source and a TOF, in view of said secondary references to Chowdhury or Aberth. Aberth also discloses one may use chemical ionization in such a tandem combination, as seen in col.4, line 39.

The primary reference to Douglas (278) further discloses that the multipole ion guide is not restricted to four poles but also may be a hexapole (col.11, first paragraph). If indeed the mass analyzer/detector is an alternative TOF, it is obvious to anyone skilled in the art that a time delayed TOF could be a common one, in which the ions are pulsed orthogonal to axis of the ion source, as disclosed by the secondary reference to Guilhaus. Note Guilhaus discloses that elements 17, 18, 19 act to focus the ions into a parallel beam 21, which is directed (guided) towards the orthogonal TOF (col.2, lines 19-23).

Art Unit: 2878

Lastly, it is obvious to one skilled in the art that if tandem mass spectrometers are used as recited above, it would not be unusual to use three such means in series, if so desired.

### *Double Patenting*

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321© may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 164-259 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-147 of U.S. Patent No. 5,652,427.

Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims as broadly written could include a guide which continues from one vacuum stage into another.

Art Unit: 2878

*Drawings*

5. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

*Conclusion*

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ex. Anderson whose telephone number is (703) 308-4851.

BRUCE ANDERSON  
PRIMARY EXAMINER  
GROUP 2500 2778

*Bruce C Anderson*

BCA

July 29, 1998